

# CYBER SECURITY PROGRAMS

Over 1,200  
Highly Qualified  
Certified Instructors

145+  
Countries

700+  
Locations

Over 4,200  
Classes Annually  
in Cyber Security

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## Who We Are

The EC-Council group is made up of several entities that all help serve the same goal which is to create a better, safer cyber world through awareness and education. Our entities include International Council of eCommerce Consultants (EC-Council), iClass, EC-Council University, EC-Council Global Services (EGS), and EC-Council Conferences and Events.

EC-Council creates content (course materials and exams) and certification delivered through our channel of authorized training centers which consists of over 700 partners representing over 2,000 physical locations in more than 145 countries across the globe. We are the owner and developer of the world-famous Certified Ethical Hacker (CEH), Computer Hacking Forensics Investigator (CHFI), EC-Council Certified Security Analyst (ECSA), and License Penetration Tester (LPT)<sup>(Master)</sup> programs.

Our certification programs are recognized worldwide and have received endorsements from various government agencies, including the United States Federal Government (via the Montgomery GI Bill), the National Security Agency (NSA), and the Committee on National Security Systems (CNSS). All these reputed organizations have certified Certified Ethical Hacking (CEH), Computer Hacking Forensics Investigator (CHFI), EC-Council Disaster Recovery Professional (EDRP), EC-Council Certified Security Analyst (ECSA) and The Advanced Penetration Testing Program and The Licensed Penetration Tester (LPT)<sup>(Master)</sup> programs for meeting the 4011, 4012, 4013A, 4014, 4015 and 4016 training standards for information security professionals. EC-Council has received accreditation from the American National Standards Institute (ANSI) for our coveted CEH,

CCISO, CHFI, and CND programs. We have so far certified over 2,20,000 professionals in various e-business and cybersecurity skills.

iClass is EC-Council's direct certification training program. iClass delivers EC-Council certification courses through various training methodologies: instructor-led at client facilities, synchronous delivery through live, online instructor-led, and asynchronously through our streaming video platform. iClass course videos can also be loaded onto a mobile device, such as an iPad, and shipped to a client location.

*“Our lives are dedicated to the mitigation and remediation of the cyber plague that is menacing the world today”*

**Jay Bavisi**  
**President & CEO**  
**EC-Council**

EC-Council University is accredited by the Distance Education Accrediting Commission. The university offering programs such as Bachelor of Science in Cyber Security, Master of Science in Cyber Security, and Graduate Certificate Program.

EC-Council Global Services (EGS) is dedicated to helping organizations understand and manage their cyber-security risk posture effectively. EGS specializes in helping clients make informed business decisions to protect their organizations. EGS has over 20 dedicated cyber security practice areas informed by the best cyber security practitioners, each of whom have dedicated their lives to defending organizations from cyber-attacks.

EC-Council's Conference and Events Group is responsible for planning, organizing, and running conferences throughout the globe. TakeDownCon and Hacker Halted are IT security conferences that bring world renowned speakers together for keynotes, panels, debates, and breakout sessions. Conferences have been run in Dallas, Las Vegas, St. Louis, Huntsville, Maryland, Connecticut, Myrtle Beach, Miami, Atlanta, Iceland, Hong Kong, Egypt, Singapore, Mumbai, Dubai, Bahrain, London, Abu Dhabi and Kuala Lumpur.

Other events include CISO Summits, Global CISO Forums, and Executive Cocktail Receptions where EC-Council brings speakers and content to executive level IT Security Professionals.

The Global Cyberlympics competition is a “capture the flag” type competition with approximately 1,000 global participants. EC-Council brings the hackers together online for preliminary elimination rounds and then brings the top two teams (6-8 players per team) from each region to compete in the final head-to-head competition.

# Pentagon trains workers to hack Defense computers

March 10, 2010 | By Larry Shaughnessy, CNN Pentagon Producer



The Pentagon is training people to hack into its own computer networks.

"To beat a hacker, you need to think like one," said Jay Bavis, co-founder and president of the International Council of Electronic Commerce Consultants, or EC-Council. His company was chosen by the Pentagon to oversee training of Department of Defense employees who work in computer security-related jobs and certify them when the training is complete.

The Department of Defense does not consider this hacking.

"DoD personnel are not learning to hack. They are learning to defend the network against hackers," said spokesman Lt. Col. Eric Butterbaugh.



**EC-Council Uni-Aid - Don't stop learning**

University Learning Partner Program

EC-Council Uni Aid is an EC-Council scholarship that provides information technology students at public universities globally access to EC-Council's industry-recognized information security education and certification and related technical disciplines.

Universities and student recipients will be part of a global community of scholarship recipients from the United States, Europe, Middle East, Africa and Asia-Pacific, all of whom share similar passion for information security and academic excellence.

EC-Council has pledged \$1,000,000 worth of information security scholarships for the 2011-2012 academic year to universities globally.

ETHICAL HACKERS

EC-Council

**EC-Council Featured in CNN | The Wolf Blitzer Show**

Aug 4, 2011 | Albuquerque, NM - Jay Bavis, president of EC-Council, was earlier interviewed by CNN, to comment on the massive cyber spying incident which targeted agencies and groups in 14 countries, including U.S. government agencies, the United Nations, defence contractors and Olympic bodies.

As reported by CNN McAfee said the attacks, which it calls Operation Shady RAT, have allowed hackers potentially to gain access to military and industrial secrets from 72 targets, most of them in the United States, over a five-year period.

EC-Council

*“EC-Council - Trusted worldwide for its end-to-end enterprise cyber security solutions for human capital development”*

# EC-Council at a Glance



EC-Council Group is a multidisciplinary institution of global Information Security professional services.

EC-Council Group is a dedicated Information Security organization that aims at creating knowledge, facilitating innovation, executing research, implementing development, and nurturing subject matter experts in order to provide their unique skills and niche expertise in cybersecurity.

Some of the finest organizations around the world such as the US Army, US Navy, DoD, the FBI, Microsoft, IBM, and the United Nations have trusted EC-Council to develop and advance their security infrastructure.

## ICECC

**International Council of E-Commerce  
Consultants**  
EC-Council Group

## ECC

**EC-Council Training & Certification**  
Division of Professional Workforce  
Development

## EGS

**EC-Council Global Services**  
Division of Corporate Consulting &  
Advisory Services

## ECCU

**EC-Council University**  
Division of Academic Education

## EGE

**EC-Council Global Events**  
Division of Conferences, Forums, Summits,  
Workshops & Industry Awards

## ECF

**EC-Council Foundation**  
Non-Profit Organization for Cyber Security  
Awareness Increase.

20+  
YEARS  
EXPERIENCE

40+  
TRAINING &  
CERTIFICATION  
PROGRAMS

195+  
COUNTRIES

1000+  
SUBJECT MATTER  
EXPERTS

2830+  
TRAINING PARTNERS  
WORLDWIDE

3000+  
TOOLS &  
TECHNOLOGIES

2,37,580+  
CERTIFIED MEMBERS

# Accreditations



## American National Standards Institute (ANSI)

EC-Council has achieved accreditation for its Certified Ethical Hacker (C|EH), Certified Chief Information Security Officer (C|CISO), Certified Network Defender (C|ND), and Computer Hacking Forensic Investigator (C|HFI), to meet the ANSI/ISO/IEC 17024 Personnel Certification Accreditation standard. EC-Council is one of a handful of certification bodies, whose primary specialization is information security, to be awarded this much sought-after quality standard.

Candidates who complete the EC-Council Certified Ethical Hacker (C|EH), Computer Hacking Forensics Investigator (C|HFI), Certified Network Defender (C|ND), and Certified Chief Information Security Officer (C|CISO) certification will also have that extra credential meeting the requirements of the respective ANSI Certification Training Standards.



## Committee on National Security Systems (CNSS) & National Security Agency (NSA)

EC-Council was honored at the 13th Colloquium for Information Systems Security Education (CISSE) by the United States National Security Agency (NSA) and the Committee on National Security Systems (CNSS) when its Certified Ethical Hacker (CEH), Computer Hacking Forensics Investigator (CHFI), Disaster Recovery Professional (EDRP), Certified Security Analyst (ECSA) and Licensed Penetration Tester (LPT) courseware was certified to have met the 4012 (Senior System Managers), 4013A (System Administrators), 4014 (Information Systems Security Officers), 4015 (Systems Certifiers) and 4016 (Information Security Risk Analyst) training standards for information security professionals in the federal government. The CNSS is a federal government entity under the U.S. Department of Defense that provides procedures and guidance for the protection of national security systems.



Candidates who complete the EC-Council Certified Ethical Hacker (CEH), Computer Hacking Forensics Investigator (CHFI), Disaster Recovery Professional (EDRP), Certified Security Analyst (ECSA) or Licensed Penetration Tester (LPT) certification will also have that extra credential meeting the requirements of the respective CNSS 4011-4016 Federal Security Certification Training Standards.



## Department of Defense (DoD)

EC-Council Certified Ethical Hacker (CEH), Computer Hacking Forensic Investigator (C|HFI), and Certified Chief Information Security Officer programs are formally integrated as baseline skill certification options for the U.S. Department of Defense (DoD) cyber workforce in several categories. Specifically, the C|CISO program is a recognized certification for the DoD IAM Level II, IAM Level III, and CSSP Manager, all specialized cyber management personnel classifications within the DoD's information assurance workforce. C|HFI is now recognized as a baseline certification for CSSP Incident Responder and C|EH is now required for the DoD's computer network defenders (CND's) – CND Analyst, CND Infrastructure Support, CND Incident Responder, and CND Auditor.



## GCHQ Certified Training (GCT)

EC-Council has achieved accreditation for its Certified Ethical Hacker (C|EH), Certified Security Analyst (ECSA), and Chief Information Security Officer (C|CISO), to meet the GCHQ Certified Training standard. This recognition is a feather in the cap for EC-Council's much sought-after credentials, which are among the most comprehensive programs in the field of Vulnerability Assessment and Penetration Testing, and Information Security Leadership.

This affirms EC-Council's commitment to offering high-quality certification programs that are developed to help arm information security professionals with the right skills to safeguard the cyber world and achieve successful professional roles.



## CREST Equivalency

Leading cyber security certification bodies CREST and EC-Council have announced mutual equivalency for their professional entry-point technical qualifications. The direct equivalency relates to the EC-Council Security Analyst (ECSA v10) qualification with the CREST Practitioner Security Analyst (CPSA) qualification. In addition, equivalency can also be granted for the for ECSA (Practical) with the CREST Registered Tester (CRT) certification, provided that the candidate already holds a valid CREST CPSA qualification.



## National Infocomm Competency Framework (NICF)

EC-Council Certified Ethical Hacker (CEH) and Computer Hacking Forensic Investigator (CHFI) programs have been accepted into National Infocomm Competency Framework (NICF) Infocomm professionals competency requirement list. In addition to the inclusion, Infocomm professionals training to be certified for the EC-Council programs at NICF accredited training centers, will be entitled to receive partial funding from Critical Infocomm Technology Resource Program (CITREP) upon certification completion.

NICF determines the skills and competencies; and develops training strategies for Infocomm professionals to build a niche Infocomm workforce in Singapore. CITREP is a training incentive program that assists Infocomm professionals with funding to gain recognized and specialized skills.

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## Department of Veterans Affairs

The Department of Veterans Affairs has included EC-Council Certified Ethical Hacker (CEH), Computer Hacking Forensic Investigator (CHFI), and EC-Council Certified Security Analyst (ECSA) under its GI Bill® for the reimbursement of test fees for veterans and other eligible persons in accordance with the provisions of PL 106-4

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## Distance Education Accrediting Commission (DEAC)

EC-Council University is accredited by the Distance Education Accrediting Commission. The Distance Education Accrediting Commission is listed by the U.S. Department of Education as a recognized accrediting agency. The Distance Education Accrediting Commission is recognized by the Council for Higher Education Accreditation (CHEA).

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## CHEA

A national advocate and institutional voice for promoting academic quality through accreditation, CHEA is an association of 3,000 degree-granting colleges and universities and recognizes approximately 60 institutional and programmatic accrediting organizations. EC-Council University as well as our accreditor are acknowledged members of The Council for Higher Accreditation (CHEA).

# Your Learning Options



## Instructor-led Training

EC-Council has a large network of Accredited Training Centers (ATC) spread across 145 countries. Each center has a certified trainer to deliver the entire EC-Council program from a training facility in your city.



## Online Training

iLearn online training is a distance learning program designed for those who cannot attend a live course. The program is for the people who have a very busy schedule and want to learn at their own pace through self-study. This modality is also available from our enterprise teams.



## Mobile Learning

Our world class content is also available on a mobile device, allowing our students to learn on the go. This program is designed for those who are cannot attend a live course, but are keen to improve their cyber security skills. This modality is also available from our enterprise teams.



## Computer-based Training

For people who work in secure facilities with limited or no access to the internet, we offer computer-based training (CBT) options delivered in an HD DVD format. The DVDs are an upgrade/add-on to the base iLearn program and are not sold independently. This modality is also available from our enterprise teams.



## Hands-on Experience with the EC-Council Cyber Range ( iLabs)

EC-Council iLabs allows students to dynamically access a host of virtual machines preconfigured with vulnerabilities, exploits, tools, and scripts from anywhere. Our simplistic web portal enables the student to launch an entire range of target machines and access them remotely with one simple click. It is the most cost-effective, easy to use, live range lab solution available. *Most of our courses are equipped with iLabs, but iLabs can be purchased independently as well.*



## Customized Learning

Love a course we offer, but want it customized? No problem! EC-Council has a dedicated team to cater to your needs. We have access to the largest pool of EC-Council certified instructors via our ATC channel. Let us know where and when you want the training delivered, and we will arrange for an instructor and all that's required for a course to be taught at a location of your choice. Contact our accredited training partners for a custom solution.

EC-Council client-site training includes official courseware, certification exam (ECC-Exam or VUE), iLabs, online labs (wherever available), and our test-pass guarantee.



## Live Online Training

If self-study or self-paced learning does not fit into your personal learning style, we offer you our live online model, iWeek.

With iWeek, an instructor will teach you live online while you are seated in the comfort of your home. This training method gives you the freedom to get trained from a location of your choice.

Individuals who choose this delivery method consistently attribute their choice to the preference of having a live instructor available for which questions can be asked and answered. We offer early-bird rates, group rates, and get even private courses delivered anytime.

# Impact of Certified Ethical Hacker (C|EH) on Cyber Careers



**79%** of C|EHs reported a salary increase of more than 20% compared with their peers.



**21%** of C|EHs reported a salary advantage of at least 40% over their peers.



**Top 10**

The C|EH ranks in the top 10 most widely recognized, important, and required certifications for both beginning and established cybersecurity professionals. (Datamation (Kime, 2022))

## Insights from 2021 C|EH Hall of Fame Annual Report

### I led

“I led a team of phenomenal cybersecurity and fraud experts to identify a significant threat actor, mitigate the actor’s operations, protect the ecosystem from attacks, and contribute to the takedown of the threat actor’s operations in 2020.”

**David Capezza,**  
Senior Director, Visa Payment Systems Intelligence, Hall of Fame finalist

### I secured

“I have expanded my knowledge of computer hacking and forensics broadly, as a result, I was able to more securely protect my organization infrastructure.”

**Michael Peters,**  
CIO at a global risk management organization. 2021 Hall of Fame nominee

### I recovered

“C|EH equipped me to direct the recovery from a ransomware incident in just a few hours without making any ransomware payment. I was also able to provide the FBI with forensic data in the form of correlated logs.”

**Bradley Newberry,**  
IT administrator for a municipality, Hall of Fame finalist.

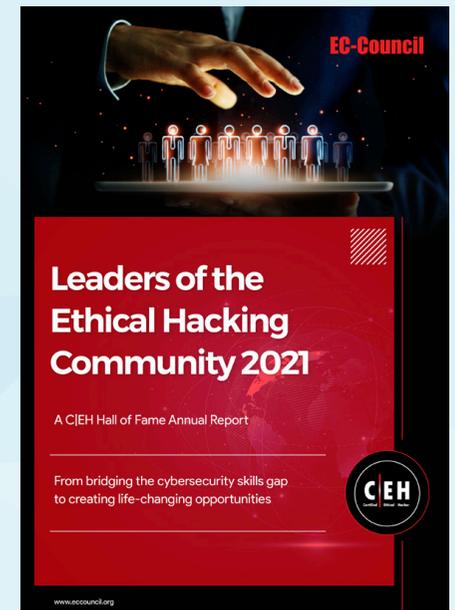
### I analyzed

“I analyzed a few malware samples related to Covid-19 and then hosted a webinar to show the audience members how to improve their cyber resilience against advanced cyberthreats.”

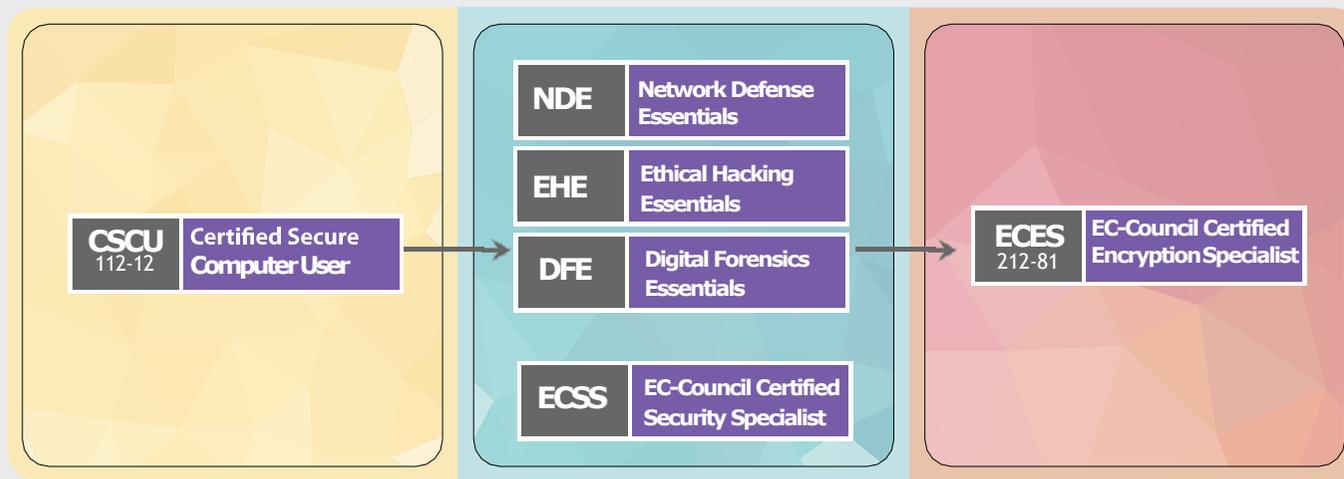
**Yinchun Zhou,**  
Senior Security Consultant at an information management solutions firm,  
Hall of Fame nominee

Check out the full report for industry insights, success stories, and learning experiences from C|EH alumni.

[Download the Report](#)



# Foundation Track



This track focuses on today's computer users who use the internet extensively to work, study and play.

## What will You Learn

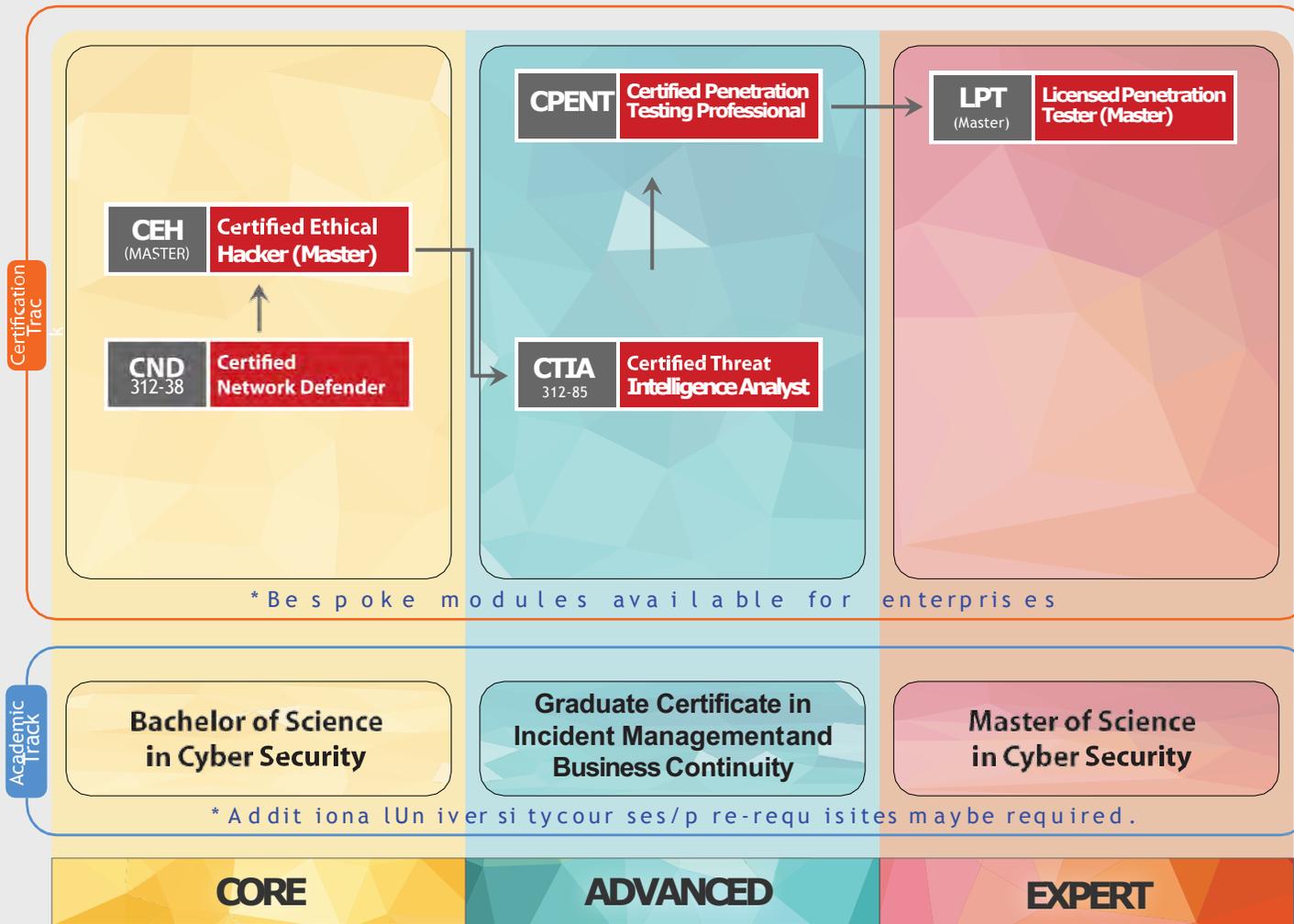
Cloud Security	Password Security	Social Engineering Countermeasures	Mitigating Identity Theft	Email Security	Safe Browsing
Data Protection	Physical Security	Mobile Device Security	Encryption	Social Network Security	Antiviruses Protection
Disaster Recovery	Internet Security	Credit Card Security	Monitoring Kids Online	Wireless & Home Network Security	OS Security

## Our Certified Foundation Professionals are Employed at:



\*All credentials can be attained individually. Please refer to [cert.eccouncil.org](http://cert.eccouncil.org) for the eligibility criteria.

# Vulnerability Assessment & Penetration Testing (VAPT)



- Information Assurance (IA) Security Officer
- Information Security Analyst/Administrator
- Information Security Manager/Specialist
- Information Systems Security Engineer/Manager
- Security Analyst
- Information Security Officers
- Information Security Auditors
- Risk/Vulnerability Analyst

## Our Certified VAPT Professionals are Employed at:

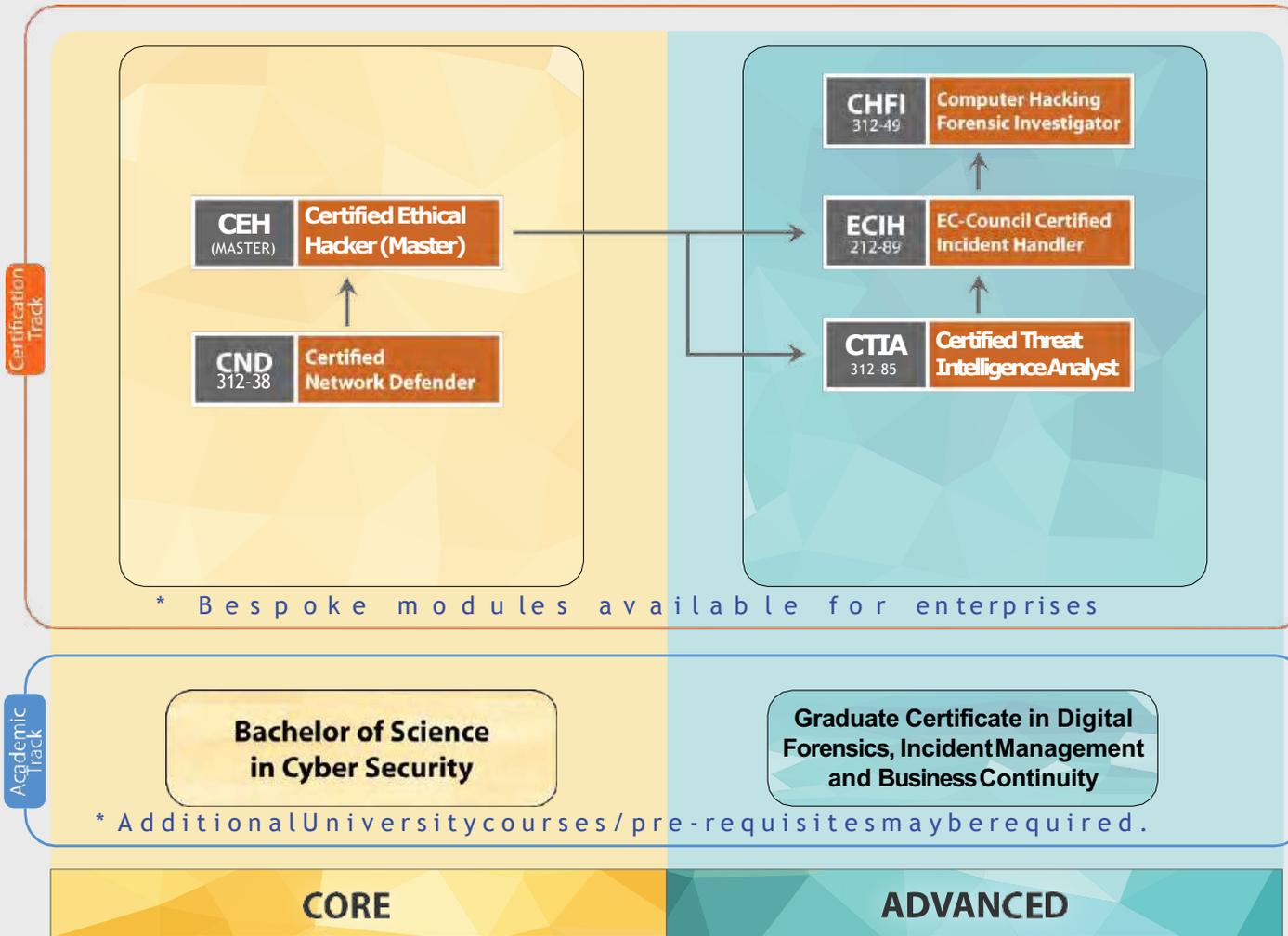


### This track maps to NICE's Specialty Areas:

- 1. Protect and Defend (PR)**
  - a. Cybersecurity Defense Analysis (DA)
  - b. Cybersecurity Defense Infrastructure
  - c. Incident Response (IR)
  - d. Vulnerability Assessment and Management (VA)
- 2. Securely Provision (SP)**
  - a. Test and Evaluation
- 3. Analyze (AN)**
  - a. Threat Analysis (TA)
  - b. Exploitation Analysis (XA)

\*All credentials can be attained individually. Please refer to [cert.eccouncil.org](http://cert.eccouncil.org) for the eligibility criteria.

# Cyber Forensics



## Job Roles

- Computer Forensic Analyst
- Computer Network Defense (CND)
- Forensic Analyst
- Digital Forensic Examiner

## Our Certified Cyber Forensic Professionals are Employed at:



Academic Track

**Bachelor of Science in Cyber Security**

\* Additional University courses / pre-requisites may be required.

**Graduate Certificate in Digital Forensics, Incident Management and Business Continuity**

**CORE**

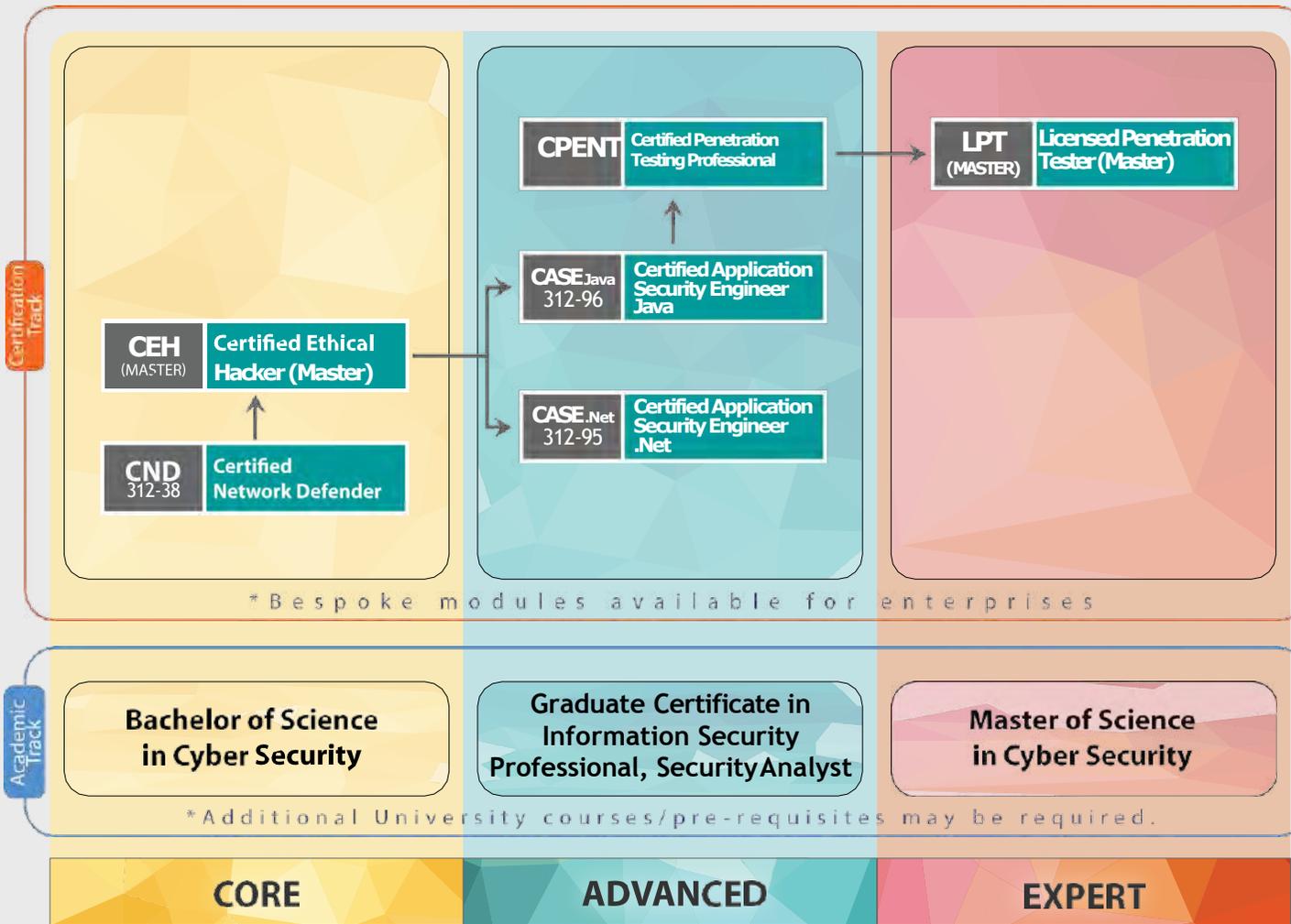
**ADVANCED**

### This Track Maps to NICE's Specialty Areas:

- |  |   |   |  |
|--|---|---|--|
| <b>1. Securely Provision (SP)</b><br>a. Risk Management (RM)<br>b. Test and Evaluation             | c. Systems Analysis (AN)  | a. Cybersecurity Defense Analysis (DA)                | Assessment and Management (VA)   |
| <b>2. Operate and Maintain (OM)</b><br>a. Network Services (NET)<br>b. Systems Administration (SA) | <b>3. Oversee and Govern (OV)</b><br>a. Cybersecurity Management (MG) | b. Cybersecurity Defense Infrastructure Support (INF) | <b>5. Analyze (AN)</b><br>a. Threat Analysis (TA)<br>b. Exploitation Analysis (XA) |
|  | <b>4. Protect and Defend (PR)</b>                                     | c. Incident Response (IR)<br>d. Vulnerability         |  |

\*All credentials can be attained individually. Please refer to [cert.eccouncil.org](http://cert.eccouncil.org) for the eligibility criteria.

# Software Security



## Job Roles

- Secure Software Engineer
- Security Engineer
- Software Developer
- Software Engineer/Architect
- Systems Analyst
- Web Application Developer
- Application Security Tester

## Our Certified Software Security Professionals are Employed at:



- ### This Track Maps to NICE's Specialty Areas:
- 1. Securely Provision**
    - a. Software Development (DEV)
    - b. Technology (RD)
  - 2. Operate and Maintain (OM)**
    - a. Data Administration (DA)
    - b. Systems Analysis (AN)
  - 3. Oversee and Govern (OV)**
    - a. Cybersecurity Management (MG)
  - 4. Protect and Defend (PR)**
    - a. Cybersecurity Defense Analysis (DA)
    - b. Vulnerability Assessment and Management (VA)
  - 5. 5. Analyze (AN)**
    - a. Analyzes collected information to identify vulnerabilities and potential for exploitation.

*\*All credentials can be attained individually. Please refer to [cert.eccouncil.org](http://cert.eccouncil.org) for the eligibility criteria.*

# Governance



## Job Roles

- Chief Information Security Officer (CISO)
- Chief Security Officer (CSO)
- Information Security (IS) Director
- Information Assurance (IA) Program Manager

**Master of Science in Cyber Security**

**Graduate Certificate in:**

- Information Security Professional
- Executive Leadership in Information Assurance

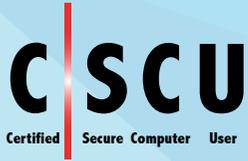
## Our Certified CCISO Professionals are Employed at:



### This Track Maps to NICE's Specialty Areas:

- |  |   |   |
|--|---|---|
| <p><b>1. Securely Provision (SP)</b></p> <ul style="list-style-type: none"> <li>a. Risk Management (RM)</li> <li>b. Technology R&amp;D (RD)</li> <li>c. Systems Requirements Planning (RP)</li> </ul> <p><b>2. Oversee and Govern (OV)</b></p> <ul style="list-style-type: none"> <li>a. Legal Advice and Advocacy (LG)</li> </ul> | <ul style="list-style-type: none"> <li>b. Training, Education, and Awareness (ED)</li> <li>c. Cybersecurity Management (MG)</li> <li>d. Strategic Planning and Policy (PL)</li> </ul> | <ul style="list-style-type: none"> <li>e. Executive Cybersecurity Leadership (EX)</li> <li>f. Acquisition and Program/Project Management (PM)</li> </ul> <p><b>3. Collect and Operate (CO)</b></p> <ul style="list-style-type: none"> <li>a. Cyber Operational Planning (PL)</li> </ul> |
|--|---|---|

\*All credentials can be attained individually. Please refer to [cert.eccouncil.org](http://cert.eccouncil.org) for the eligibility criteria.



# Certified Secure Computer User (CSCU)

## Course Description

**CSCU** provides individuals with the necessary knowledge and skills to protect their information assets.

This course covers fundamentals of various computer and network security threats such as identity theft, credit card fraud, phishing, virus and backdoors, emails hoaxes, loss of confidential information, hacking attacks, and social engineering.

**OhPhish:** OhPhish covers phishing, smishing, and vishing solutions in a single revolutionary platform to help organizations strengthen their most vulnerable asset, their people. Learn more about OhPhish

[READ MORE](#)

## Course Outline

- Introduction to Security
- Securing Operating Systems
- Malware and Antivirus
- Internet Security
- Security on Social Networking Sites
- Securing Email Communications
- Securing Mobile Devices
- Securing Cloud
- Securing Network Connections
- Data Backup and Disaster Recovery

## Key Outcomes

- Fundamentals of various computer and network security threats
- Understanding of identity theft, phishing scams, malware, social engineering, and financial frauds
- Learn to safeguard mobile, media and protect data
- Protecting computers, accounts, and social networking profiles as a user
- Understand security incidents and reporting

## Exam Information

- Exam Title: Certified Secure Computer User
- Exam Code: 112-12
- Number of Questions: 50
- Duration: 2 Hours
- Availability: ECC Exam Portal
- Test Format: Multiple Choice
- Passing Score: 70%



# What is Digital Forensics Essentials?



## What Is Digital Forensics Essentials?

EC-Council’s Digital Forensics Essentials or D|FE certification is part of the Essentials Series and offers foundational learning on digital forensics and investigation phases. D|FE modules are mapped to industry skills and are designed to prepare students for entry-level cybersecurity roles. It recognizes the competency and expertise in digital forensics and information security skills, equipping candidates to bring value to their workplace and organization.



## Course Overview

The course is developed for those interested in learning the fundamentals of computer forensics who aspire to pursue a career in computer forensics, or digital forensics. It equips students with the skills required to identify an intruder’s footprints in the aftermath of the cybercrime & assemble digital evidence necessary for prosecution in a court of law.

The Essentials Series is EC-Council’s first Massive Open Online Course (MOOC) series to promote essential cybersecurity skills. The courseware comes with a free eBook, lab tutorials, video lectures with optional upgrades to lab access, an exam certificate, and more.



## Who is it for?

- High school students
- College/University Students
- Professionals



## Learning Objective

- |  |                                |
|--|--------------------------------|
| 1. Computer Forensics Fundamentals           | 10. Dark Web Forensics         |
| 2. Computer Forensics Investigation Process  | 11. Investigating Email Crimes |
| 3. Understanding Hard Disks and File Systems | 12. Malware Forensics          |
| 4. Data Acquisition and Duplication          |                                |
| 5. Defeating Anti-Forensics Techniques       |                                |
| 6. Windows Forensics                         |                                |
| 7. Linux and Mac Forensics                   |                                |
| 8. Network Forensics                         |                                |
| 9. Investigating Web Attacks                 |                                |

## Course Mapping

- C | ND
- C | EH
- E | CIH
- C | HFI
- C | CT



## Exam Information

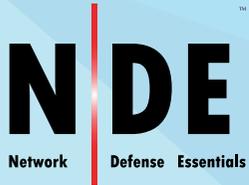
EXAM TITLE: Digital Forensic Essentials (D|FE)

EXAM LENGTH: 2 Hours

PLATFORM: ECC Exam Center

# OF QUESTIONS: 75

PASSING SCORE: 70%



# Essentials Series | Network Defense Essentials



## What Is Network Defense Essentials?

Network Defense Essentials or N|DE is an entry-level certification from EC-Council launched under the Essentials Series to boost cybersecurity skills. N|DE modules are curated by industry experts to give participants a holistic overview of the critical components of network security. The program is developed for those who want to kickstart a career in cybersecurity.

N|DE validates the competency and expertise of a professional in network defense and information security skills, thereby equipping them to bring more value to their workplace and organization.



## Course Content

The Network Defense Essentials program covers the fundamental concepts of network defense and security. N|DE equips students with the knowledge and skills required to identify the increasing network security threats that impact the security posture of organizations around the globe. Participants also learn to implement general security controls to protect the underlying network infrastructure from unauthorized access, modification, destruction, or disclosure.

The essentials course is EC-Council’s first Massive Open Online Course (MOOC) educational series. The courseware comes with a free eBook, lab tutorials, and video lectures with optional upgrades to labs, exam certificates, and more.



## Learning Objective

1. Network Security Fundamentals
2. Identification, Authentication, and Authorization
3. Network Security Controls - Administrative Controls
4. Network Security Controls - Physical Controls
5. Network Security Controls - Technical Controls
6. Virtualization and Cloud Computing
7. Wireless Network Security
8. Mobile Device Security
9. IoT Device Security
10. Cryptography and PKI
11. Data Security
12. Network Traffic Monitoring



## Who is it for?

- High school students
- College/university students
- Professionals

## Related Courses

- C|ND
- C|EH
- C|EH MASTER
- C|PENT
- LPT MASTER



## Exam Information

EXAM TITLE: Network Defense Essentials (N DE)	# OF QUESTIONS: 75
EXAM FORMAT: Multiple Choice Exam	PASSING SCORE: 70%
PLATFORM: ECC Exam Center	EXAM LENGTH: 2 Hours



# Essentials Series | Ethical Hacking Essentials



## What Is Ethical Hacking Essentials?

Ethical Hacking Essentials, or the E|HE certification, is an entry-level cybersecurity program from EC-Council in the Essential Series. It encompasses the fundamental concepts of ethical hacking, penetration testing, and information security. E|HE is designed for those who want to launch a career in cybersecurity. It equips students with the essential skills required for entry-level cybersecurity professionals in the field of ethical hacking.

The program builds the competency and fundamental expertise required of professionals in ethical hacking and information security skills, equipping them to bring more value to their organization.



## Course Content

The Ethical Hacking Essentials program covers the fundamental concepts of information security and ethical hacking. E|HE equips students with the knowledge and skills to identify information security threats and attack vectors, including password cracking, social engineering, sniffing, and implementing general security controls.

The essentials course is EC-Council’s first Massive Open Online Course (MOOC) educational series. The courseware comes with a free eBook, lab tutorials, and video lectures with optional upgrades to labs, exam certificates, and more.



## Learning Objective

1. Information Security Fundamentals
2. Ethical Hacking Fundamentals
3. Information Security Threats and Vulnerabilities
4. Password Cracking Techniques and Counter measures
5. Social Engineering Techniques and Counter measures
6. Network Level Attacks and Countermeasures
7. Web Application Attacks and Countermeasures
8. Wireless Attacks and Countermeasures
9. Mobile Attacks and Countermeasures
10. IoT and OT Attacks and Countermeasures
11. Cloud Computing Threats and Countermeasures
12. Penetration Testing Fundamentals



## Who is it for?

- High school students
- College/university students
- Professionals

## Related Courses

- C|ND
- C|EH
- C|EH MASTER
- C|PENT
- LPT MASTER



## Exam Information

EXAM TITLE: Ethical Hacking Essentials (E|HE)

# OF QUESTIONS: 75

EXAM LENGTH: 2 Hours

PASSING SCORE: 70%

PLATFORM: ECC Exam Center



# Web Application Hacking and Security



## What is WAHS?

EC-Council's Web Application Hacking and Security is a specialization certification that enables you to play, learn, hack, test, and secure web applications from existing and emerging security threats in the industry verticals.



## Course Content

100% hands-on lab-based learning about application vulnerabilities and web application hacking. The course provided the challenger with the ability to follow an instructor as they make their way through the challenges.



## Who is it for

- Penetration Tester
- Ethical Hacker
- Web Application Penetration Tester/Security Engineer/Auditor
- Red Team Engineer
- Information Security Engineer
- Risk/Vulnerability Analyst
- Vulnerability Manager
- Incident responder



## Learning Objectives

1. Learn Application Vulnerabilities
2. Hack and Defend web applications
3. Advanced Web Application Penetration Testing
4. Advanced SQL Injection
5. Security Misconfigurations
6. Reflected, Stored and DOM-based Cross Site Scripting (XSS)
7. Cross Site Request Forgery (CSRF) - GET and POST Methods
8. Server-Side Request Forgery (SSRF)
9. CMS Vulnerability Scanning

25+ More

## Related Courses

- CND
- CEH
- CEH (Practical)
- CPENT
- LPT (Master)
- CASE



## Exam Information

EXAM TITLE : WAHS

DURATION : 6 Hours

AVAILABILITY : ECC Exam Portal



# Certified Cybersecurity Technician



## What is C|CT?

The C|CT is an entry-level cybersecurity program engineered by EC-Council, the creator of the Certified Ethical Hacker (CIEH) certification, to address the global need and demand for cybersecurity technicians with strong foundational skills. CICT is focused on hands-on practice, with more than 50% of training time dedicated to labs.



## Course Content

- The CICT training is accompanied by critical thinking tasks and immersive lab exercises that allow candidates to apply their knowledge and move into the skill development phase in the class itself.
- The CICT develops participants. Fundamental cybersecurity skills across the fields of network defense, ethical hacking, digital forensics, and security operations giving learners the foundation they need to kickstart a career in cybersecurity.



## Who is it for

The CICT is ideal for anyone looking to start their career in cybersecurity or add a strong foundational understanding of the cybersecurity concepts and techniques required to be effective on the job. The course is especially well suited to:

- Early-career IT professionals, IT managers, career changer, and career advancers
- Students and recent graduates



## Learning Objectives

1. Key concepts in cybersecurity, including information security and network Security
2. Information security threats, vulnerabilities, and attacks
3. The different types of malware
4. Identification, authentication, and authorization
5. Network security controls
6. Network security assessment techniques and tools (threat hunting, threat intelligence, vulnerability assessment, ethical hacking, penetration testing, configuration and asset management)
7. Application security design and testing techniques
8. Fundamentals of virtualization, cloud computing, and cloud security
9. Wireless network fundamentals, wireless encryption, and related security measures
10. Fundamentals of mobile, IoT, and OT devices and related security measures
11. Cryptography and public-key infrastructure
12. Data security controls, data backup and retention methods, and data loss prevention techniques
13. Network troubleshooting, traffic and log monitoring, and analysis of suspicious traffic
14. The incident handling and response process
15. Computer forensics and digital evidence fundamentals, including the phase of a forensic investigation
16. Concepts in business continuity and disaster recovery
17. Risk management concepts, phases and frameworks



## Exam Information

EXAM TITLE : Certified Cloud Security Engineer

EXAM CODE : 212-82

# OF QUESTIONS : 60

DURATION : 3 Hours

AVAILABILITY : ECC Exam Portal

TEST FORMAT : Multiple choice and Real Life

hands-on Practical Exam

EXAM MODE : Remote Proctoring Services



# EC-Council's Certified Cloud Security Engineer Program



## What is C|CSE

EC-Council's Certified Cloud Security Engineer (C1CSE) program is a hands-on learning course curated by cloud security professionals in collaboration with subject matter experts across the globe. This specialized course combines vendor-neutral and vendor-specific cloud security concepts mapped to real-time cloud security job roles.



## Domain

1. Introduction to Cloud Security
2. Platform and Infrastructure Security in Cloud
3. Application Security in Cloud
4. Data Security in Cloud
5. Security Operations in Cloud
6. Penetration Testing in Cloud
7. Incident Response in Cloud
8. Forensic Investigation in Cloud
9. Business Continuity and Disaster Recovery in Cloud
10. Governance, Risk Management, and Compliance in Cloud
11. Standards, Policies, and Legal Issues in Cloud



## Who is it for

This program is ideal for:

- Network security administrators, network security engineers, network defenders, cybersecurity engineers, and any other job role that involves handling the security of traditional network environments
- Cloud administrators, cloud engineers, and other industry professionals with experience in managing cloud platforms
- Any other role that involves network or cloud administration, management, and operations



## USPs of the Program

- Vendor-neutral and vendor-specific cloud security concepts.
- A comprehensive cloud security program
- Deep focus and demonstration on widely used vendor-specific AWS, AZURE, and GCP cloud security practices, tools, and technologies
- Covers both technical and operational aspect of cloud security
- Dedicated focus on Penetration Testing, Forensics investigation, Incident Response, BC/DR. GRC related security practices in cloud
- Intensive hands-on program (with more than 50 labs)
- Mapped with real-time job roles and responsibilities of cloud security professionals.



## Exam Information

EXAM TITLE: Certified Cloud Security Engineer

EXAM CODE : 312-40

# OF QUESTIONS : 125

DURATION : 4 Hours

AVAILABILITY : ECC Exam Portal

TEST FORMAT : Multiple Choice Questions

# ICS/SCADA



## What Is Ethical Hacking Essentials?

Industrial automation processes use industrial control systems (ICS) and supervisory control and data acquisition (SCADA) systems to control industrial processes locally or remotely and to monitor, gather, and process real-time data.



## Course Overview

The ICS/SCADA Cybersecurity course is a hands-on training module that teaches the foundations of security and defending network architectures from attacks. Students will learn to think like a malicious hacker to defend their organizations.

ICS/SCADA teaches powerful methods to analyze risks possessed by network infrastructure in IT and corporate spaces. Once your foundation or basic concepts are clear, you will learn a systematic process of intrusion and malware analysis. After this, you will learn about digital forensic process and incident response techniques upon detecting a breach.



## Course Outline

1. Introduction to ICS/SCADA Network Defense
2. TCP/IP 101 0
3. Introduction to Hacking
4. Vulnerability Management
5. Standards and Regulations for Cybersecurity
6. Securing the ICS network
7. Bridging the Air Gap
8. Introduction to Intrusion Detection Systems (IDS) and Intrusion Prevention Systems (IPS)



## Who is it for?

This course is designed for IT professionals who manage or direct their organization's IT infrastructure and are responsible for establishing and maintaining information security policies, practices, and procedures.



## Exam Information

EXAM TITLE: ICS / SCADA  
 EXAM LENGTH: 2 Hours  
 PLATFORM: ECC Exam Center

# OF QUESTIONS: 75  
 PASSING SCORE: 70%



# EC-Council Certified Security Specialist (ECSS)

## Course Description

EC-Council Certified Security Specialist (ECSS) is an entry level security program covering the fundamental concepts of information security, computer forensics, and network security. It enables students to identify information security threats which reflect on the security posture of the organization and implement general security controls.

This program will give a holistic overview of the key components of information security, computer forensics, and network security. This program provides a solid fundamental knowledge required for a career in information security.

## Course Outline

- Information Security Fundamentals
- Networking Fundamentals
- Secure Network Protocols
- Information Security Threats and Attacks
- Social Engineering
- Hacking Cycle
- Identification, Authentication, and Authorization
- Cryptography
- Firewalls
- Intrusion Detection System
- Data Backup
- Virtual Private Network
- Wireless Network Security
- Web Security
- Ethical Hacking and Pen Testing
- Incident Response
- Computer Forensics Fundamentals
- Digital Evidence
- Understanding File Systems
- Windows Forensics
- Network Forensics and Investigating Network Traffic
- Steganography
- Analyzing Logs
- E-mail Crime and Computer Forensics
- Writing Investigative Report

## Key Outcomes

- It facilitates your entry into the world of Information Security
- It provides professional understanding about the concepts of Information Security, Network Security, and Computer Forensics
- It provides best practices to improve organizational security posture
- It enhances your skills as a Security Specialist and increases your employability

## Exam Information

- Exam Title: EC-Council Certified Security Specialist
- Exam Code: ECSS
- Number of Questions: 50
- Duration: 2 hours
- Availability: ECC Exam Portal
- Test Format: Multiple Choice
- Passing Score: 70%



# EC-Council Certified Encryption Specialist (ECES)

## Course Description

The EC-Council Certified Encryption Specialist (ECES) program introduces professionals and students to the field of cryptography. The participants will learn the foundations of modern symmetric and key cryptography including the details of algorithms such as Feistel Functions, DES, and AES.

## Course Outline

- Introduction and History of Cryptography
- Symmetric Cryptography and Hashes
- Number Theory and Asymmetric Cryptography
- Applications of Cryptography
- Cryptanalysis

## Key Outcomes

- Develop skills to protect critical data in organizations with encryption
- Develop a deep understanding of essential cryptography algorithms and their applications
- Make informed decisions about applying encryption technologies
- Save time and cost by avoiding common mistakes in implementing encryption technologies effectively
- Develop working knowledge of cryptanalysis

## Exam Information

- Exam Title: EC-Council Certified Encryption Specialist
- Exam Code: 212-81
- Number of Questions: 50
- Duration: 2 hours
- Availability: ECC Exam Portal
- Test Format: Multiple Choice
- Passing Score: 70%



# Certified Network Defender (CND)

## Course Description

**CND** is the world's most advanced network defense course that covers 14 of the most current network security domains any individuals will ever want to know when they are planning to protect, detect, and respond to the network attacks.

The course contains hands-on labs, based on major network security tools and to provide network administrators real world expertise on current network security technologies and operations.

## Course Outline

- Computer Network and Defense Fundamentals
- Network Security Threats, Vulnerabilities, and Attacks
- Network Security Controls, Protocols, and Devices
- Network Security Policy Design and Implementation
- Physical Security
- Host Security
- Secure Firewall Configuration and Management
- Secure IDS Configuration and Management
- Secure VPN Configuration and Management
- Wireless Network Defense
- Network Traffic Monitoring and Analysis
- Network Risk and Vulnerability Management
- Data Backup and Recovery
- Network Incident Response and Management

## Key Outcomes

- Knowledge on how to protect, detect, and respond to network attacks
- Network defense fundamentals
- Application of network security controls, protocols, perimeter appliances, secure IDS, VPN, and firewall configuration
- Intricacies of network traffic signature, analysis, and vulnerability scanning

## Exam Information

- Exam Title: Certified Network Defender
- Exam Code: 312-38
- Number of Questions: 100
- Duration: 4 hours
- Availability: ECC Exam Portal
- Test Format: Multiple Choice
- Passing Score: Please refer to <https://cert.eccouncil.org/faq.html>



# Certified Ethical Hacker (C|EH)

## Course Description

**C|EH** is the world's most advanced certified ethical hacking course that covers 20 of the most current security domains any individual will ever want to know when they are planning to beef-up the information security posture of their organization.

The accredited course provides the advanced hacking tools and techniques used by hackers and information security professionals.

## Course Outline

- Introduction to Ethical Hacking
- Footprinting and Reconnaissance
- Scanning Networks
- Enumeration
- Vulnerability Analysis
- System Hacking
- Malware Threats
- Sniffing
- Social Engineering
- Denial-of-Service
- Session Hijacking
- Evading IDS, Firewalls, and Honeypots
- Hacking Web Servers
- Hacking Web Applications
- SQL Injection
- Hacking Wireless Networks
- Hacking Mobile Platforms
- IoT Hacking
- Cloud Computing
- Cryptography

## Key Outcomes

- Thorough introduction to ethical hacking
- Exposure to threat vectors and countermeasures
- Addresses emerging areas of IoT, cloud and mobile hacking
- Prepares you to combat Trojans, malware, backdoors, and more
- Enables you to hack using mobile

## Exam Information

- Exam Title: Certified Ethical Hacker (ANSI)
- Exam Code: 312-50 (ECC EXAM), 312-50 (VUE)
- Number of Questions: 125
- Duration: 4 hours
- Availability: ECC Exam Portal, VUE
- Test Format: Multiple Choice
- Passing Score: Please refer to <https://cert.eccouncil.org/faq.html>



# Certified Ethical Hacker (Practical)

## Course Description

**C|EH Practical** is a six-hour, rigorous exam that requires you to demonstrate the application of ethical hacking techniques such as threat vector identification, network scanning, OS detection, vulnerability analysis, system hacking, web app hacking, etc. to solve a security audit challenge.

This is the next step after you have attained the highly acclaimed Certified Ethical Hacker certification.

## C|EH (Practical) Credential Holders Can

- Demonstrate the understanding of attack vectors
- Perform network scanning to identify live and vulnerable machines in a network.
- Perform OS banner grabbing, service, and user enumeration.
- Perform system hacking, steganography, steganalysis attacks, and cover tracks.
- Identify and use viruses, computer worms, and malware to exploit systems.
- Perform packet sniffing.
- Conduct a variety of web server and web application attacks including directory traversal, parameter tampering, XSS, etc.
- Perform SQL injection attacks.
- Perform different types of cryptography attacks.
- Perform vulnerability analysis to identify security loopholes in the target organization's network, communication infrastructure, and end systems etc.

## Key Outcomes

- Mastery of Ethical Hacking skills.
- Demonstrate the application of the knowledge to find solutions to real-life challenges.
- Commitment to code of ethics.
- Validate essential skills required in the ethical hacking domains.

## Exam Information

- Exam Title: Certified Ethical Hacker (Practical)
- Number of Practical Challenges: 20
- Duration: 6 hours
- Availability: Aspen - iLabs
- Test Format: iLabs Cyber Range
- Passing Score: 70%



# Certified Threat Intelligence Analyst (CTIA)

## Course Description

**C|TIA** is a method-driven program that uses a holistic approach, covering concepts from planning the threat intelligence project to building a report to disseminating threat intelligence. These concepts are highly essential while building effective threat intelligence and, when used properly, can secure organizations from future threats or attacks.

This program addresses all the stages involved in the Threat Intelligence Life Cycle. This attention to a realistic and futuristic approach makes C|TIA one of the most comprehensive threat intelligence certifications on the market today.

## Course Outline

- Introduction to Threat Intelligence
- Cyber Threats and Kill Chain Methodology
- Requirements, Planning, Direction, and Review
- Data Collection and Processing
- Data Analysis
- Intelligence Reporting and Dissemination

## Key Outcomes

- Enable individuals and organizations with the ability to prepare and run a threat intelligence program that allows evidence-based knowledge and provides actionable advice about existing and unknown threats
- Ensure that organizations have predictive capabilities rather than just proactive measures beyond active defense mechanism
- Empower information security professionals with the skills to develop a professional, systematic, and repeatable real-life threat intelligence program
- Differentiate threat intelligence professionals from other information security professionals
- Provide an invaluable ability of structured threat intelligence to enhance skills and boost their employability

## Exam Information

- Exam Title: Certified Threat Intelligence Analyst
- Exam Code: 312-85
- Number of Questions: 50
- Duration: 2 hours
- Availability: EC-Council Exam Portal
- Test Format: Multiple Choice
- Passing Score: 70%



# Certified SOC Analyst (CSA)

## Course Description

The Certified SOC Analyst (CSA) program is the first step to joining a security operations center (SOC). It is engineered for current and aspiring Tier I and Tier II SOC analysts to achieve proficiency in performing entry-level and intermediate-level operations. CSA is a training and credentialing program that helps the candidate acquire trending and in-demand technical skills through instruction by some of the most experienced trainers in the industry. The program focuses on creating new career opportunities through extensive, meticulous knowledge with enhanced level capabilities for dynamically contributing to a SOC team. Being an intense 3-day program, it thoroughly covers the fundamentals of SOC operations, before relaying the knowledge of log management and correlation, SIEM deployment, advanced incident detection, and incident response. Additionally, the candidate will learn to manage various SOC processes and collaborate with CSIRT at the time of need.

## Course Outline

- Module 1: Security Operations and Management
- Module 2: Understanding Cyber Threats, IoCs, and Attack Methodology
- Module 3: Incidents, Events, and Logging
- Module 4: Incident Detection with Security Information and Event Management (SIEM)
- Module 5: Enhanced Incident Detection with Threat Intelligence
- Module 6: Incident Response

## Key Outcomes

- Gain Knowledge of SOC processes, procedures, technologies, and workflows.
- Able to recognize attacker tools, tactics, and procedures to identify indicators of compromise (IOCs) that can be utilized during active and future investigations.
- Gain experience and extensive knowledge of Security Information and Event Management.
- Able to develop threat cases (correlation rules), create reports, etc.
- Plan, organize, and perform threat monitoring and analysis in the enterprise.
- Able to prepare briefings and reports of analysis methodology and results.
- Gain understanding of SOC and IRT collaboration for better incident response.

## Exam Information

- Exam Title: Certified SOC Analyst
- Exam Code: 312-39
- Number of Questions: 100
- Duration: 3 hours
- Availability: EC-Council Exam Portal (please visit <https://www.eccexam.com>)
- Test Format: Multiple Choice
- Passing Score: 70%



# Certified Penetration Tester



## What is CPENT?

Introducing the most extensive and advanced penetration testing program on the planet. The dynamic pen testing course culminates in a brand new 24-hr practical exam, hosted on the new EC-Council Cyber Range platform, CyberQ. CPENT provides the capability to assess a pen tester's skills across a broad spectrum of "network zones," with each zone representing a distinct type of testing. The pen testing challenges shall truly test a candidate's ability to think-on-their-feet and perform real world maneuvers. Candidates challenging the CPENT Program must overcome their assessment challenges which are created in various zones, which is unlike any other Penetration Testing program available in the market today.



## Course Content

Students will receive their study kit consisting of physical and digital course materials, including their iLabs code. iLabs will be used to complete classroom training sessions. Students will work with the instructor to review the tools and learn how to apply them to the iLabs Cyber Range.



## Who is it for?

- Penetration Testers
- Ethical Hackers
- Information Security Consultants/ Testers/Analysts/Engineers
- Network Server Administrators
- Firewall & System Administrators
- Risk Assessment Professionals



## What is new in CPENT?

- CPENT is an all new program that is a vital element of the EC-Council VAPT learning track, which also includes CND and CEH.
- Instead of one or two specialties in existing programs, the CPENT focuses on multiple disciplines, presented through an enterprise network environment that must be attacked, exploited, evaded and defended.
- CPENT includes advanced Windows attacks with PowerShell (or other bypass techniques), as well as advanced methods to score points within zones.
- Students attack IOT systems by locating and gaining access to the network and identifying the firmware of the IOT device.
- Students also bypass a filtered network and leverage it to gain access to web applications that must be compromised.
- The CPENT program exposes the learners to advanced environments and techniques such as penetration testing operational technology, double pivoting, evading defence mechanism, report writing, and professional dynamic reporting.

## Course Mapping

- CND
- CEH
- CEH (Practical)
- CPENT
- LPT (Master)



## Exam Information

EXAM TITLE: Certified Penetration Tester  
 # OF QUESTIONS: 10 + Report  
 Writing DURATION: 24 Hours or 12-Hour Sessions  
 PASSING SCORE: 70% for CPENT and 90% for LPT (Master)

**ECSA**

EC-Council Certified Security Analyst

# EC-Council Certified Security Analyst (ECSA)

## Course Description

**ECSA** is a globally accepted hacking and penetration testing program that covers the testing of modern infrastructures, operating systems, and application environments while teaching the students how to document and write a penetration testing report.

This program takes the tools and techniques covered in C|EH to next level by utilizing EC-Council's published penetration testing methodology.

## Course Outline

- Penetration Testing Essential Concepts (Student Introduction)
- Introduction to Penetration Testing and Methodologies
- Penetration Testing Scoping and Engagement Methodology
- Open-Source Intelligence (OSINT) Methodology
- Social Engineering Penetration Testing Methodology
- Network Penetration Testing Methodology – External
- Network Penetration Testing Methodology – Internal
- Network Penetration Testing Methodology – Perimeter Devices
- Web Application Penetration Testing Methodology
- Database Penetration Testing Methodology
- Wireless Penetration Testing Methodology
- Cloud Penetration Testing Methodology
- Report Writing and Post Testing Actions

## Key Outcomes

- Introduction to security analysis and penetration testing methodologies
- In-depth vulnerability analysis, network penetration testing from external and internal evading firewalls and IDS
- Learn to own web applications and databases, and take over cloud services
- Analyze security of mobile devices and wireless networks
- Present findings in a structured actionable report

## Exam Information

- Exam Title: EC-Council Certified Security Analyst
- Exam Code: 412-79
- Number of Questions: 150
- Duration: 4 hours
- Availability: ECC Exam Portal
- Test Format: Multiple Choice
- Passing Score: 70%



# EC-Council Certified Security Analyst (Practical)

## Course Description

**ECSA (Practical)** is a 12-hour, rigorous practical exam built to test your penetration testing skills.

The candidates are required to demonstrate the application of the penetration testing methodology that is presented in the ECSA program, and are required to perform a comprehensive security audit of an organization, just like in the real world. You will start with challenges requiring you to perform advanced network scans beyond perimeter defenses, leading to automated and manual vulnerability analysis, exploit selection, customization, launch, and post exploitation maneuvers.

## ECSA (Practical) Credential Holders Can

- Perform advanced network scans beyond perimeter defenses, leading to automated and manual vulnerability analysis, exploit selection, customization, launch and post exploitation maneuvers.
- Customize payloads
- Make critical decisions at different phases of a pen-testing engagement
- Perform advanced network scans beyond perimeter defenses
- Perform automated and manual vulnerability analysis
- Customization, launch, and post exploitation maneuvers
- Perform a full fledged Penetration Testing engagement
- Create a professional pen-testing report
- Demonstrate the application of penetration testing methodology presented in the ECSA program

## Key Outcomes

- Test your ability to perform threat and exploit research, understand exploits in the wild, write your own exploits, customize payloads, and make critical decisions
- Create a professional pen testing report with essential elements

## Exam Information

- Exam Title: EC-Council Certified Security Analyst (Practical)
- Number of challenges: 8
- Duration: 12 hours
- Availability: Aspen- iLabs
- Test Format: iLabs cyber range
- Passing Score: 5 out of 8 challenges and submission of an acceptable penetration testing report



# EC-Council Certified Incident Handler (ECIH)

## Course Description

The ECIH program is designed to provide the fundamental skills to handle and respond to the computer security incidents in an information system. The course addresses various underlying principles and techniques for detecting and responding to current and emerging computer security threats.

The comprehensive training program will make students proficient in handling as well as responding to various security incidents such as network security incidents, malicious code incidents, and insider attack threats.

## Course Outline

- Introduction to Incident Response and Handling
- Risk Assessment
- Incident Response and Handling Steps
- CSIRT
- Handling Network Security Incidents
- Handling Malicious Code Incidents
- Handling Insider Threats
- Forensic Analysis and Incident Response
- Incident Reporting
- Incident Recovery
- Security Policies and Laws

## Key Outcomes

- Principals, processes and techniques for detecting and responding to security threats/ breaches
- Liaison with legal and regulatory bodies
- Learn to handle incidents and conduct assessments
- Cover various incidents like malicious code, network attacks, and insider attacks

## Exam Information

- Exam Title: EC-Council Certified Incident Handler
- Exam Code: 212-89
- Number of Questions: 50
- Duration: 2 hours
- Availability: ECC Exam Portal
- Test Format: Multiple Choice
- Passing Score: 70%



# Computer Hacking and Forensic Investigator (CHFI)

## Course Description

CHFI is a comprehensive course covering major forensic investigation scenarios, enabling students to acquire hands-on experience.

The program provides a strong baseline knowledge of key concepts and practices in the digital forensic domains relevant to today's organizations. Moreover, CHFI provides firm grasp on the domains of digital forensics.

## Course Outline

- Computer Forensics in Today's World
- Computer Forensics Investigation Process
- Understanding Hard Disks and File Systems
- Data Acquisition and Duplication
- Defeating Anti-Forensics Techniques
- Operating System Forensics
- Network Forensics
- Investigating Web Attacks
- Database Forensics
- Cloud Forensics
- Malware Forensics
- Investigating Email Crimes
- Mobile Forensics
- Forensics Report Writing and Presentation

## Key Outcomes

- Comprehensive forensics investigation process
- Forensics of file systems, operating systems, network and database, websites, and email systems
- Techniques for investigating on cloud, malware, and mobile
- Data acquisition and analysis as well as anti-forensic techniques
- Thorough understanding of chain of custody, forensic report, and presentation

## Exam Information

- Exam Title: Computer Hacking Forensic Investigator
- Exam Code: 312-49 exam
- Number of Questions: 150
- Duration: 4 hours
- Availability: ECC Exam Portal
- Test Format: Multiple Choice
- Passing Score: Please refer to <https://cert.eccouncil.org/faq.html>



# Certified Application Security Engineer (CASE) Java

## Course Description

The **CASE Java** program is designed to be a hands-on, comprehensive application security training course that will help software professionals create secure applications. It trains software developers on the critical security skills and knowledge required throughout a typical software development life cycle (SDLC), focusing on the importance of the implementation of secure methodologies and practices required in today's insecure operating environment.

## Course Outline

- Understanding Application Security, Threats, and Attacks
- Security Requirements Gathering
- Secure Application Design and Architecture
- Secure Coding Practices for Input Validation
- Secure Coding Practices for Authentication and Authorization
- Secure Coding Practices for Cryptography
- Secure Coding Practices for Session Management
- Secure Coding Practices for Error Handling
- Static and Dynamic Application Security Testing (SAST & DAST)
- Secure Deployment and Maintenance

## Key Outcomes

- Security Beyond Secure Coding - Challenging the traditional mindset where secure application means secure coding
- Testing and credentialing secure application development across all phases of the SDLC
- CASE Program maps to many Specialty Areas under "Securely Provision category" in the NICE 2.0 Framework
- Covers techniques such as Input Validation techniques, Defense Coding Practices, Authentications and Authorizations, Cryptographic Attacks, Error Handling techniques, and Session Management techniques, among many others

## Exam Information

- Exam Title: Certified Application Security Engineer (Java)
- Exam Code: 312-96
- Number of Questions: 50
- Duration: 2 hours
- Availability: ECC Exam Portal
- Test Format: Multiple Choice
- Passing Score: 70%



# Certified Application Security Engineer (CASE) .Net

## Course Description

CASE goes beyond just the guidelines on secure coding practices but include secure requirement gathering, robust application design, and handling security issues in post development phases of application development.

This makes CASE one of the most comprehensive certifications for secure software development in the market today. It's desired by software application engineers, analysts, testers globally, and respected by hiring authorities.

The hands-on training program encompasses security activities involved in all phases of the Secure Software Development Life Cycle (SDLC): planning, creating, testing, and deploying an application.

## Course Outline

- Understanding Application Security, Threats, and Attacks
- Security Requirements Gathering
- Secure Application Design and Architecture
- Secure Coding Practices for Input Validation
- Secure Coding Practices for Authentication and Authorization
- Secure Coding Practices for Cryptography
- Secure Coding Practices for Session Management
- Secure Coding Practices for Error Handling
- Static and Dynamic Application Security Testing (SAST & DAST)
- Secure Deployment and Maintenance

## Key Outcomes

- Ensure that application security is no longer an afterthought but a foremost one.
- It lays the foundation required by all application developers and development organizations, to produce secure applications with greater stability and fewer security risks to the consumer.
- Ensure that organizations mitigate the risk of losing millions due to security compromises that may arise with every step of application development process.
- Helps individuals develop the habit of giving importance to security sacrosanct of their job role in the SDLC, therefore opening security as the main domain for testers, developers, network administrator etc.

## Exam Information

- Exam Title: Certified Application Security Engineer (.NET)
- Exam Code: 312-95
- Number of Questions: 50
- Duration: 2 hours
- Availability: ECC Exam Portal
- Test Format: Multiple Choice
- Passing Score: 70%



# Advanced Penetration Testing

## Course Description

In the Advanced Penetration Testing Course, you are presented with minimal network information along with a Scope of Work (SOW). The course was created to provide you with advanced concepts that will help when it comes to attempting the LPT (Master) Certification exam.

The last module of the course includes an SOW for each of the various networks we have created for the course. This, combined with the composition of various ranges, mimics a professional penetration test. Time is limited and you will be required to identify the attack surface followed by the weaknesses of the machines that are on the network.

## Key Outcomes

- Prepare you for the LPT (master) exam.
- Learn professional security and penetration testing skills.
- Show advanced concepts like scanning against defenses, pivoting between networks, deploying proxy chains, and using web shells.

## Course Outline

- Introduction to Vulnerability Assessment and Penetration Testing
- Information Gathering Methodology
- Scanning and Enumeration
- Identify Vulnerabilities
- Exploitation
- Post Exploitation
- Advanced Tips and Techniques
- Preparing a Report
- Practice Ranges



# The Licensed Penetration Tester (Master) Credential- LPT(Master)

## Course Description

The LPT (Master) credential is developed in collaboration with SMEs and practitioners around the world after a thorough job role, job task, and skills-gap analysis.

The LPT (Master) practical exam is the capstone to EC-Council's entire information security track, right from the CEH to the ECSA Program. The LPT (Master) exam covers the skill-sets, technical analysis and report writing, required to be a true professional penetration tester.

## Testimonials



"Converting fear into confidence with LPT<sub>(Master)</sub>"

by Adithya Naresh



"Proud to attain the LPT<sub>(Master)</sub> credential"

by Ali Isikli



"LPT<sub>(Master)</sub>: Extremely challenging and one of the toughest exams"

by Mark Horvat



"Real-life penetration testing with LPT<sub>(Master)</sub>"

by Moustafa Mohamed Mohsen

## Key Outcomes

### LPT Demonstrates

- Mastery of penetration testing skills
- Ability to perform repeatable methodology
- Commitment to code of ethics
- Ability to present analysed results through structured reports

## Exam Information

Live Online

Fully Proctored

3 Levels

9 Challenges

18 Hours



# CAST 614 – Advanced Network Defense

## Course Description

CAST 614 is an advanced course offering you the opportunity to deep dive into the crucial practical aspects of enterprise network security.

It covers fundamental areas of fortifying your defenses by discovering methods of developing a secure baseline and how to harden your enterprise architecture from the most advanced attacks. Once a strategy for a fortified perimeter is denied, the course moves on to defending against the sophisticated malware that is on the rise today, and the importance of live memory analysis and real time monitoring.

## Course Outline

- Firewalls
- Advanced Filtering
- Firewall Configuration
- Hardening: Establishing a Secure Baseline
- Intrusion Detection and Prevention
- Protecting Web Applications
- Memory Analysis
- Endpoint Protection
- Securing an Enterprise

## Key Outcomes

- Stage a strong defense against popular security threats
- Fortify your organization with a good foundation of risk protection methods
- Apply latest references and guidance on best practices in the field of cybersecurity
- Secure your enterprise architecture from a medium threat level and build towards more sophisticated threats

## Exam Information

- Exam Title: CAST 614 - Advanced Network Defense
- Number of Questions: 50 (Written) and 10 (Practical)
- Duration: 90 minutes (Written) and 60 minutes (Practical)
- Availability: ECC Exam Portal
- Passing Score: Written Exam (60%) and Practical Exam (70%)

# EC-Council Disaster Recovery Professional (EDRP)

## Course Description

The EDRP course identifies vulnerabilities and takes appropriate countermeasures to prevent and mitigate failure risks for an organization. It also provides the networking professional a foundation in disaster recovery course principles, including preparation of a disaster recovery plan, assessment of risks in the enterprise, development of policies and procedures, an understanding of the roles and relationships of various members of an organization, implementation of a plan, and recovering from a disaster.

## Course Outline

- Introduction to Disaster Recovery and Business Continuity
- Business Continuity Management (BCM)
- Risk Assessment
- Business Impact Analysis (BIA)
- Business Continuity Planning (BCP)
- Data Backup Strategies
- Data Recovery Strategies
- Virtualization-Based Disaster Recovery
- System Recovery
- Centralized and Decentralized System Recovery
- Disaster Recovery Planning Process
- BCP Testing, Maintenance, and Training

## Key Outcomes

- Introduction to business continuity, risk management, and disaster recovery
- Disasters and emergency management, and applicable regulations
- DR planning process, preparation, recovery of systems and facilities
- Incident response and liaison with public services and regulatory bodies
- Exposure to various services from government and other entities

## Exam Information

- Exam Title: EC-Council Disaster Recovery Professional
- Exam Code: 312-76
- Number of Questions: 150
- Duration: 4 hours
- Availability: ECC Exam Portal
- Test Format: Multiple Choice
- Passing Score: 70%



# Certified Chief Information Security Officer (C|CISO)

## Course Description

The C|CISO certification is an industry-leading program that recognizes the real-world experience necessary to succeed at the highest executive levels of information security. Bringing together all the components required for a C-Level positions, the C|CISO program combines audit management, governance, IS controls, human capital management, strategic program development, and the financial expertise vital for leading a highly successful IS program.

The C|CISO Training Program can be the key to a successful transition to the highest ranks of information security management.

## Domains

- Governance
- Security Risk Management, Controls, & Audit Management
- Security Program Management & Operations
- Information Security Core Competencies
- Strategic Planning, Finance, & Vendor Management

## Key Outcomes

- Establishes the role of CISO and models for governance
- Core concepts of information security controls, risk management, and compliance
- Builds foundation for leadership through strategic planning, program management, and vendor management

## Exam Information

- Number of Questions: 150
- Duration: 2.5 hours
- Test Format: Multiple Choice

Executive

Specializations

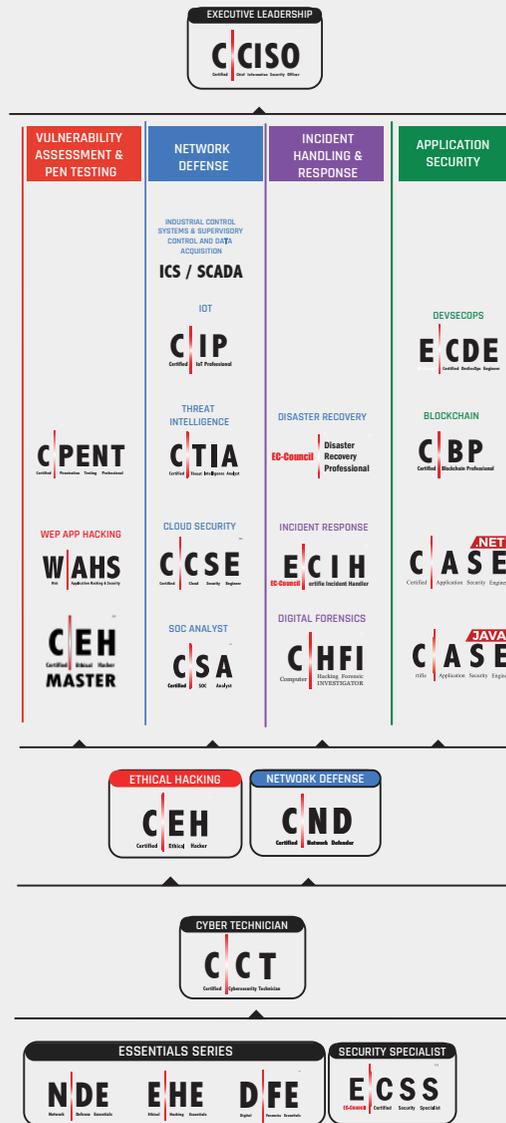
Core

Cyber Technician

Cyber Essentials

Knowledge Workers

Individual Courses



Cybersecurity Professionals

Cybersecurity Awareness



Phishing Awareness



Browse a catalog of over 10,000 courses



# OhPhish

## Course Description

OhPhish portal imitates real-world phishing scenarios. The platform equips employees with the most efficient solutions and products to combat phishing attacks and prevent data breaches. It caters to the need for businesses by creating a safe working environment from Phishing, Smishing, and Vishing attacks. OhPhish integrates e-Learning and gamification modules in a Learning Management System (LMS), helping employees to stay aware of phishing attacks.

## OhPhish Solutions

- Email Phishing
- Vishing
- Smishing
- Spear Phishing

## Key Outcomes

- Builds a user-friendly cybersecurity awareness training solution
- Maintains "Active Directory" to launch comprehensively laid out phishing templates
- Generates extensive reports in PDF and Excel formats
- Tracks real-time updates with snapshots (availability on Mobile Applications)
- Identifies trends based on user, department, and other critical demographic

## Code Red Subscription/ EC-Council Micro-degrees:

CodeRed is a continuous learning platform designed for Busy Cyber professionals - offering them content rich courses created by worlds' leading cybersecurity certification provide



### Why CodeRed:

- Unlimited access to a library of 100s of courses
- Courses built by world-class experts and cybersecurity influencers
- Courses are aligned to current job hiring trends
- More than 40% of the courses are hands-on

### EC-Council Microdegrees

- Python Security** Microdegree
- Cloud Security** Microdegree
- PHP Security** Microsecurity

Master advanced cybersecurity skills with the modern flexibility of self-paced learning and practical hands-on labs. EC-Council's Microdegree offers a unique form of learning experience that encourages a learner to acquire specialized skill sets in a relatively short amount of time. The MicroDegree engages the learner in over 200 hours of comprehensive deep-dive, hands-on learning experience, enabling them to excel in their career.

### What's Included:

Official Course Manual	Practical Video Learning Content	Cyber Range
Lab Manuals	Assessments/Quiz	Proctored Exam

# Bachelor of Science in Cyber Security (BSCS)

## Program Description

The **Bachelor of Science in Cyber Security (BSCS)** prepares students the knowledge for careers in cyber security and assurance. The program consists of topical areas dealing with computer security management, incident response, and security threat assessment, etc.

## Courses

- CIS 300 Fundamentals of Information Systems Security
- CIS 301 Legal Issues in Cyber Security
- CIS 302 Managing Risk in Information Systems
- CIS 303 Security Policies and Implementation Issues
- CIS 304 Auditing IT Infrastructures for Compliance
- CIS 308 Access Control
- CIS 401 Security Strategies in Windows Platforms and Applications
- CIS 402 Security Strategies in Linux Platforms and Applications
- CIS 403 Network Security, Firewalls, and VPNs
- CIS 404 Hacker Techniques, Tools, and Incident Handling
- CIS 405 Internet Security: How to Defend Against Online Attackers
- CIS 406 System Forensics, Investigation, and Response
- CIS 407 Cyberwarfare
- CIS 408 Wireless and Mobile Device Security
- CIS 410 Capstone Course
- COM 340 Communication and Technical Writing
- MTH 350 Introduction to Statistics
- PSY 360 Social Psychology
- BIS 430 Ethics for the Business Professional
- ECN 440 Principles of Microeconomics
- MGT 450 Introduction to Project Management

## Key Outcomes

- Application of technical strategies, tools and techniques to provide security for information systems.
- Adherence to a high standard of ethical behavior.
- Use of research in both established venues and innovative applications to better provide risk assessment, policy updates and security for established enterprise systems.
- Understanding the importance of critical thinking to creatively and systematically solve the problems within the parameters of existing information systems.
- Achieve the competency skills needed to fulfill position requirements in the cyber security field.

## Exam Information

- Completion of 60 credit hours of 300/400 level courses in which the candidate earned a cumulative GPA of 2.0 or better.
- Completion of 120 + total semester credit hours including all transfer credit awarded.
- Satisfactory completion of the summative capstone course.
- All degree requirements must be completed within one and a half times the program length as measured by maintaining a cumulative course completion rate of 67% of course work from the first term the student enrolls in the University and begins the program to graduation.

## Program Description

EC-Council University's Graduate Certificate Program focuses on the competencies necessary for information assurance professionals to become managers, directors, and CIOs. Students will experience not only specialized technical training in a variety of IT security areas, but will also acquire an understanding of organizational structure and behavior, the skills to work within and across that organizational structure, and the ability to analyze and navigate its hierarchy successfully. Each certificate targets skills and understandings specific to particular roles in the IT security framework of an organization. The certificates can be taken singly or as a progressive set of five, each building on the one before it to move students from IT practitioner skill levels to IT executive skill levels.

## Courses

- **Information Security Professional**
  - Managing Secure Networks (C|ND)
  - Ethical Hacking and Countermeasures (C|EH)
  - Research and Writing for the IT Practitioner
- **Security Analyst**
  - Security analyst and vulnerability assessment (ECSA)
  - Conducting Penetration and Security Tests (LPT-Master)
  - Securing Wireless Networks
- **Cloud Security Architect** (Any 3 of the 4 courses below)
  - Secure Programming
  - Advanced Network Defense
  - Advanced Mobile Forensics or
  - Designing and Implementing Cloud Security
- **Incident Management and Business Continuity**
  - Beyond Business Continuity
  - Disaster Recovery (EDRP)
  - Incident Handling and Response (ECIH)
- **Executive Leadership in Information Assurance**
  - Global Business Leadership
  - Project Management
  - Executive Governance and Management (CCISO)

## Graduate Certificates

- Information Security Professional
- Security Analyst
- Cloud Security Architect
- Incident Management and Business Continuity
- Executive Leadership in Information Assurance

## Exam Information

- Completion of mandated credit hours of courses in which the candidate earned a cumulative GPA or 3.0 or better
- All certificate requirements must be completed within one and a half times the program length as measured by maintaining a cumulative course competition rates of 67% of course work from the first term the student enrolls in the University and begins the program to the last course needed.

# Master of Science in Cyber Security (MSCS)

## Program Description

The **Master of Science in Cyber Security (MSCS)** Program prepares information technology professionals for careers in cyber security and assurance. The program consists of topical areas dealing with computer security management, incident response, and cyber security threat assessment, which require students to be the creators of knowledge and inventors of cyber security processes, not merely users of information. Additionally, students will receive instruction in leadership and management in preparation for becoming cyber security leaders, managers, and directors.

## Courses

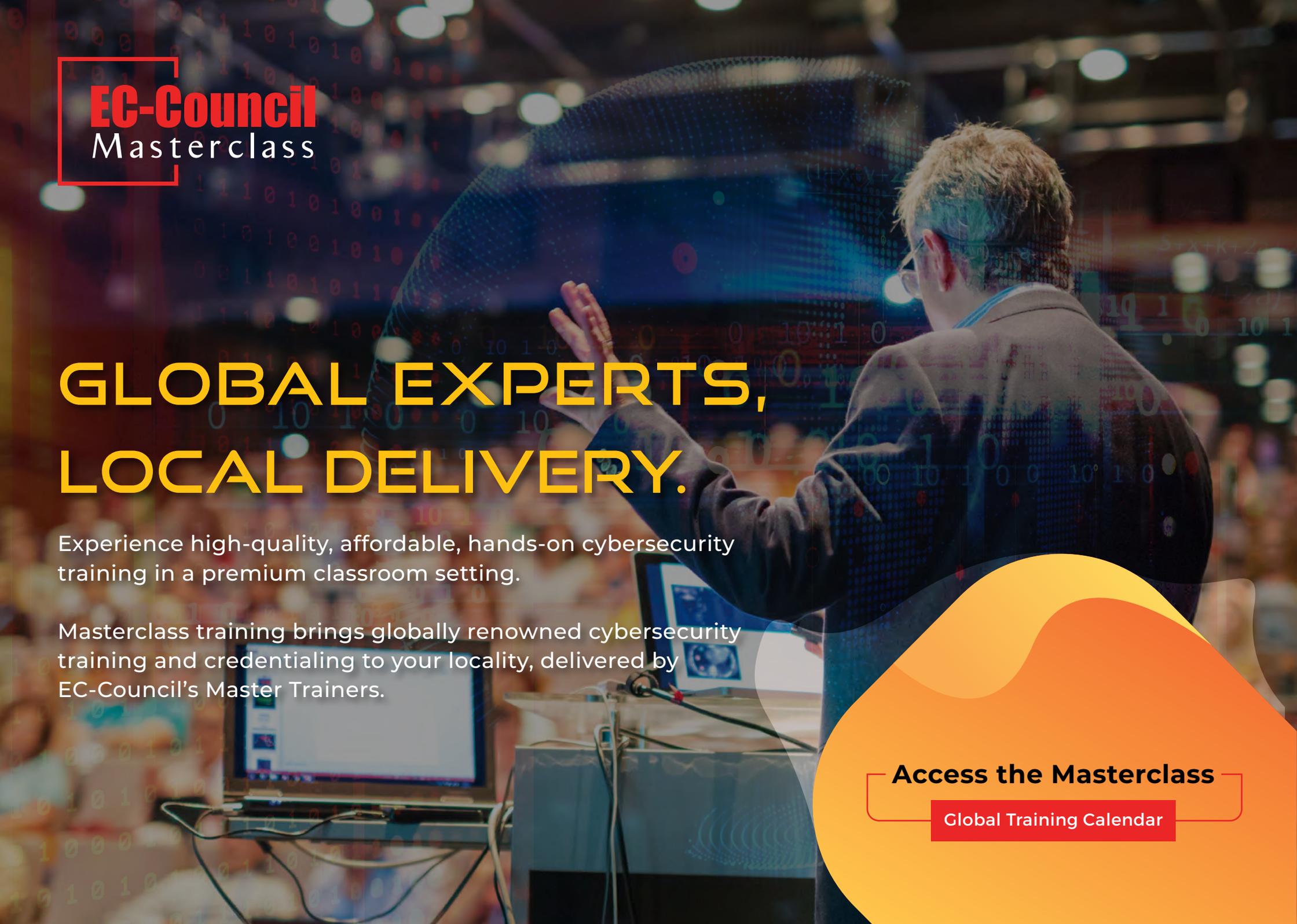
- ECCU 500 Managing Secure Network Systems
- MGMT 502 Business Essentials
- ECCU 501 Ethical Hacking & Countermeasures
- ECCU 502 Investigating Network Intrusions and Computer Forensics
- ECCU 503 Security Analysis and Vulnerability Assessment
- ECCU 504 Foundations of Organizational Behavior for the IT Practitioner
- ECCU 505 Introduction to Research and Writing for the IT Practitioner
- ECCU 506 Conducting Penetration and Security Tests
- ECCU 507 Linux Networking and Security
- ECCU 509 Securing Wireless Networks
- ECCU 510 Secure Programming
- ECCU 511 Global Business Leadership
- ECCU 512 Beyond Business Continuity: Managing Organizational Change
- ECCU 513 Disaster Recovery
- ECCU 514 Quantum Leadership
- ECCU 515 Project Management in IT Security
- ECCU 516 The Hacker Mind: Profiling the IT Criminal
- ECCU 517 Cyber Law
- ECCU 518 Special Topics
- ECCU 519 Capstone
- ECCU 520 Advanced Network Defense
- ECCU 521 Advanced Mobile Forensics and Security
- ECCU 522 Incident Handling and Response
- ECCU 523 Executive Governance Management
- ECCU 524 Designing and Implementing Cloud Security
- ECCU 525 Securing Cloud Platforms

## Key Outcomes

- Application of cyber security technical strategies, tools, and techniques to secure data and information for a customer or client
- Adherence to a high standard of cyber security ethical behavior
- Use of research in both established venues and innovative applications to expand the body of knowledge in cyber security
- Application of principles of critical thinking to creatively and systematically solve the problems and meet the challenges of the everchanging environments of cyber security
- Mastery of the skills necessary to move into cyber security leadership roles in companies, agencies, divisions, or departments

## Exam Information

- Completion of thirty-six (36) credits of 500 level courses in which the candidate earned a cumulative GPA of 3.0 or better
- Satisfactory completion of the summative capstone course
- All degree requirements must be completed within one and a half times the program length or have a cumulative course completion rate of 67% of coursework from the date the student enrolls in the University and begins the program.



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